THE RECOVERY KERNEL

How to Navigate the Recovery Kernel

For People Recovering from Inhalants

Volatile solvents (glue, spray paint, gasoline, butane, toluene, aerosols, and computer duster and other aerosol propellants) and nitrous oxide (whippets, nangs). A step-by-step route: what to read, in what order, and what to expect. Poppers are covered in the companion poppers guide.

> **HARM REDUCTION RESOURCE — NOT MEDICAL ADVICE. SOLVENTS: SUDDEN SNIFFING DEATH CAN HAPPEN ON THE FIRST USE. THERE IS NO SAFE AMOUNT.** Solvents make the heart hypersensitive to adrenaline, so a startle, panic, or exertion right after inhaling can trigger a fatal rhythm. **Call 911 and start CPR** if someone collapses, and do not shake or startle someone who seems intoxicated but is breathing. Never use alone, and never near a flame: butane and other solvents ignite.
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> **NITROUS OXIDE DESTROYS VITAMIN B12.** Tingling, numbness, or weakness in the hands or feet after nitrous use means stop and get B12, methylmalonic acid, and homocysteine tested and a neurological exam now: it can be the start of spinal cord damage, and early treatment is when it is most reversible. Use in a closed room can cause suffocation from oxygen displacement. Never inhale directly from a pressurized source: it is cold enough to cause frostbite.
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> Crisis: call or text 988 · SAMHSA: 1-800-662-4357 · Teen Line: 1-800-852-8336

1. Before you start

This is a route through the Recovery Kernel for people whose problem is volatile solvents or nitrous oxide, and for the people supporting them. The Kernel is emphatic that these substances share only a route. Solvents are central nervous system depressants that disrupt cell membranes, and are the substance of the economically excluded: adolescents, street children, and impoverished communities the clinic rarely reaches. Nitrous oxide is an NMDA blocker that irreversibly destroys vitamin B12. Use only the path that fits you (both if you use both). Six rules follow.

- **Path A, solvents: the structure is as much of the treatment as the chemistry.** There is no MAT and no reversal agent, and the Kernel says recovery has to address the conditions that made the substance necessary: housing, food, safety, belonging, and trauma.
- **Path B, nitrous oxide: B12 first.** The danger is a slow neurological injury that appears weeks after use and is often attributed to something else. Testing and treatment are time-sensitive.
- **Get examined first.** Both paths start with a medical and neurological assessment, not a supplement stack.
- **Ask about your B12 risk factors.** For nitrous, the Kernel lists frequent use, low B12 to begin with (vegan or vegetarian diet, older age, metformin, pernicious anemia), MTHFR variants, and taking folic acid without B12.

- **Neither has an antidote or a substitute drug.** Recovery here is nutrition, repair, structure, and time.
- **Do not wait for test results to start.** Stop the substance now. The tests guide treatment, not whether to stop.

How chapters are cited. "Main Book" is the Recovery Kernel Main Book (Second Edition, Centurian). "Compendium" is the Complete Protocol Compendium. "Supp. Ch. N" is chapter N of the Supplemental Book. The core chapter is Chapter 28 (How to Recover from Inhalants): Part A is solvents, Part B is nitrous oxide, and Section 7 is the integrated view. Section numbers (§) refer to sections inside it.

> **A note on the chapter's structure.** Supplemental Chapter 28 covers three different substances, and its overview table says each Part runs to a Section 6 (0A to 6A, 0B to 6B, 0C to 6C). In the text provided, Part A ends at Section 4A, Part B at Section 4B, and Part C at Section 3C, and the chapter then jumps to Section 7 (the integrated view). No Part has its own craving-interrupt or natural-porting section. Where this guide needs those, it borrows the Kernel's general material from other chapters and says so. The chapter cites almost no Compendium protocols by number, so there is no protocol-number mismatch to warn about here.
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> For solvents, there is no safe “topping up” at any point — repeated huffing carries the same sudden-death risk on every inhalation, not just the first.
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> Redosing is not the only version of this. Watching peers in a treatment setting negotiate a relapse, getting confident advice from someone untrained in your specific situation, or noticing a prescriber treat a prescribed substance more casually than an illicit one can all trigger the same pattern: a felt doubt read as “the plan must be wrong,” answered by abandoning it. See **The Commandeering Map**, a companion to this series, for the fuller pattern, including how it can differ by genetic profile and what helps when practice-based resistance alone is not enough.

2. The route at a glance

Steps 0 and 1 come first. Steps 2 to 4 can run together. Steps 5 to 8 overlap and are the work of the first two years. Step 9 is everything after. Path A and Path B are marked where they differ.

Step	When	What you do	Turn to
0	Day 0	Triage: sudden death and fire (A); suffocation, frostbite, neurological symptoms, falls (B).	Supp. Ch. 28 §0A; §0B Main Book, Quick-Start Step 1
1	Days 0–14	Medical assessment: neurological exam and labs. B12, MMA, homocysteine (B). Kidneys, liver, heart (A).	Supp. Ch. 28 §0A.3; §1B.3, §3B.2 Supp. Ch. 8 if heavy daily solvent use
2	Weeks 1–4	Read the Main Book in order.	Main Book: Who This Book Is For, Quick-Start, Part One (Ch. 1–5) Supp. Ch. 2, 3
3	Weeks 1–4	Get the tests and, optionally, the genome: MTHFR, MTR/MTRR (B); GABRA2, MTHFR, BDNF (A).	Supp. Ch. 5 Step 1 Supp. Ch. 28 §2A; §2B

Step	When	What you do	Turn to
4	Weeks 2–6	Resolve your profile and your risk factors.	Supp. Ch. 5 Steps 2–3, 6 Supp. Ch. 28 §2A; §2B
5	Day 1 to Month 12	Repair: nutrition, B12 and methylation, myelin support, exercise, physical therapy.	Supp. Ch. 28 §3A; §3B Supp. Ch. 5 Phase One
6	Day 1, then ongoing	Path A: conditions before chemistry. Path B: the festival and social cues.	Supp. Ch. 28 §4A; §4B Compendium P05, P08
7	Months 1–12	What it was providing, and the earned alternative.	Supp. Ch. 28 §1A.3, §4B, §7 Supp. Ch. 23 §6; Ch. 26 §6
8	From week 2	Trauma, mood, and support.	Supp. Ch. 28 §4A Supp. Ch. 39
9	Months 3+, Year 1 to 10	Identity, school or work, and the long game.	Supp. Ch. 42, 43, 44 Compendium C-28, P24, P25 Supp. Ch. 5 Step 6

3. The route, step by step

Step 0 — Triage (Day 0, before everything)

Path A, solvents. Sudden sniffing death is the main acute killer, from a sensitized heart meeting a surge of adrenaline. The Kernel says risk is highest with methods that concentrate vapor and cause low oxygen (a bag over the head), and that any startle or exertion right after inhaling can trigger it. Do not use alone, since low oxygen can cause loss of consciousness before you can remove a bag, and never near flame. Chronic use brings its own emergencies: confusion or loss of coordination that does not clear between uses, progressive weakness and numbness in the hands and feet (n-hexane), profound weakness from electrolyte disturbance (toluene kidney damage), and breathing trouble after aspirating solvent.

Path B, nitrous oxide. Watch for suffocation from oxygen displacement in enclosed spaces (blue lips, loss of consciousness: move to fresh air and call 911), frostbite from pressurized canisters, falls (sudden loss of coordination within seconds, so never stand, and stay away from water, heights, and traffic), and, most importantly, any tingling or numbness in hands or feet. The Kernel says to stop nitrous and seek neurological evaluation at once for tingling, and not to dismiss it as minor.

> **Computer duster and other aerosol propellants (Path A).** The Kernel lists aerosol dusting products and refrigerant-type gases among the solvents with a very high risk of sudden sniffing death, because they can deliver a very high concentration very fast and sensitize the heart to adrenaline. It says deaths from aerosol propellants have been documented, that a fatal rhythm can happen on the first use, at any age, with no warning and no safe amount, and that a startle or any exertion right after inhaling can be enough. Someone can look fine one moment and collapse the next. If a person collapses after using a duster, call 911 and start CPR, and do not shake them or move them to a car. This callout names the everyday product; the Kernel's own text says "aerosol cans (dusting)" and "aerosol propellants."

Turn to: Supp. Ch. 28 §0A (sudden sniffing death; hypoxia and fire; ongoing medical emergencies) and §0B (nitrous oxide emergencies). Main Book, Quick-Start Boot Sequence, Step 1.

Step 1 — Medical assessment (Days 0–14)

Path A. Ask for a neurological exam, an electrolyte and kidney panel, liver tests, and an ECG, and tell the clinician the specific product (toluene, n-hexane, butane, aerosol propellant), since each has its own toxicity. The Kernel names toluene (white matter damage, cerebellar signs, kidney tubular acidosis, hearing loss), n-hexane (peripheral neuropathy), butane and aerosol propellants (the highest cardiac risk), and acetone (lower toxicity, but liver damage with heavy use). It says withdrawal from severe solvent dependence follows the alcohol-style GABA pattern, usually milder, with seizure possible in severe cases, so heavy daily use needs medical assessment before stopping (Supp. Ch. 8 covers the alcohol framework). Start thiamine early, since malnutrition is common and thiamine deficiency can cause Wernicke encephalopathy, a medical emergency.

Path B. The Kernel's tests: serum B12, methylmalonic acid (MMA), and homocysteine, because nitrous can cause functional B12 deficiency even when serum B12 looks normal. If symptoms are present: a neurological exam and an MRI of the spine, and B12 given by injection, which is the standard of care for established spinal cord damage, and should not be delayed to "see if oral is enough." Subacute combined degeneration (SACD) has stages: early tingling in the hands and feet, which is highly reversible with prompt B12; intermediate weakness, unsteady gait, loss of fine hand control, and electric-shock sensations down the back, which is partly reversible and needs urgent neurology; and late paralysis, cognitive and psychiatric change, and incontinence, which is incompletely reversible.

Turn to: Supp. Ch. 28 §0A.3 (chronic solvent emergencies), §1A.2 (substance-specific toxicity), §1B.3 (SACD: the stages), §3B.2 (when to see a doctor). Supp. Ch. 8 (Alcohol), §3, for the GABA-withdrawal framework.

Step 2 — Read the Main Book (Weeks 1–4)

Read it in order once you are settled. If you are overwhelmed, the Quick-Start Boot Sequence is designed to be read on its own. Read "Who This Book Is — and Is Not — For" first: it names situations where the supplement protocols need medical modification, including active psychosis, pregnancy, and severe liver disease. For nitrous, Part One Ch. 2 (MTHFR) is the most relevant chapter in the book.

Read in this order: Who This Book Is For → Quick-Start Boot Sequence → Part One: Ch. 1 (Why Willpower Isn't Enough), Ch. 2 (MTHFR), Ch. 3 (COMT), Ch. 4 (CYP450), Ch. 5 (When Systems Collide) → Part Two, the case files (Chapter 6). Ch. 8 (Oxytocin Protocol) is experimental and specialist-only. **Then add:** Supp. Ch. 2 (Clarity · Restoration · Manning). The Kernel has no inhalant case study. Supp. Ch. 3 (The Addict Virgin Problem) recalibrates timelines for a damaged system. Supp. Ch. 1 (Why They Left You There) is optional reading for the shame.

Step 3 — Get the tests, and optionally the genome (Weeks 1–4)

For nitrous, the defining gene is **MTHFR**: the Kernel cites the Compendium's phenotype scoring, in which adverse reactions to dental nitrous oxide add to the likelihood of an MTHFR variant, and says C677T homozygous carriers face the highest risk. Also relevant: **MTR** (methionine synthase, the enzyme nitrous inactivates) and **MTRR** (which reactivates B12), and screening for pernicious anemia, since anyone who cannot absorb B12 should not be exposed. For solvents, the Kernel says the genome is less specific: **GABRA2** (baseline GABA tone, same as alcohol), **MTHFR** (myelin repair depends on methylation), and **BDNF** Val66Met (repair speed). Get the labs first, since they change treatment now.

> **If you order genetic testing.** Supp. Ch. 5 specifies 30× whole-genome sequencing with VCF output. "WGBS" more commonly names whole-genome bisulfite sequencing, a DNA-methylation assay that is not built to call variants such as MTHFR C677T. Ask the lab for a standard variant file (VCF).

Turn to: Supp. Ch. 5, Step 1. Supp. Ch. 28 §2A (genomic blueprint for solvent recovery) and §2B (genomic blueprint for nitrous recovery). Compendium Protocol 06, Phenotype Assessment.

Step 4 — Resolve your profile and your risk factors (Weeks 2–6)

Write your profile down and carry key results on a card.

If your result is...	What changes	Source
MTHFR C677T or A1298C (nitrous)	Impaired methylation stacked on nitrous-induced B12 inactivation, so a worse outcome. Aggressive methylcobalamin and 5-MTHF repletion is the treatment. Testing is warranted if you ever reacted badly to dental nitrous or had symptoms after recreational use.	Supp. Ch. 28 §2B; Main Book Ch. 2
MTR / MTRR variants (nitrous)	Slower repair of oxidized B12 or reduced methionine synthase activity, compounding the loss.	Supp. Ch. 28 §2B
Pernicious anemia or B12 malabsorption	A contraindication to any nitrous exposure. Test B12 and MMA to find your baseline and check for malabsorption.	Supp. Ch. 28 §2B
Low B12 to start: vegan or vegetarian diet, older age, metformin	The Kernel lists these as SACD risk factors. Tell your clinician you use or used nitrous.	Supp. Ch. 28 §1B.3

If your result is...	What changes	Source
Folic acid without B12 (nitrous)	The Kernel warns this can precipitate SACD. Use 5-MTHF, not folic acid, and never treat the folate side without B12.	Supp. Ch. 28 §3B
GABRA2 high-risk (solvents)	Lower baseline GABA tone, so a stronger pull toward GABA-potentiating substances. Severe-dependence withdrawal follows the alcohol approach.	Supp. Ch. 28 §2A
BDNF Met (solvents)	Slower neurological repair. Exercise is the most important behavioral intervention.	Supp. Ch. 28 §2A, §3A

Turn to: Supp. Ch. 5, Steps 2, 3, and 6. Supp. Ch. 28 §2A and §2B. Main Book Ch. 5 and Appendix A.

Step 5 — Repair (Day 1 to Month 12)

Path B first. If there are neurological symptoms, the Kernel says start methylcobalamin immediately and get evaluated, because every week of delay at the symptom stage is more myelin damage. Its stack: methylcobalamin as the highest priority (injectable by a physician for established SACD); 5-MTHF, which bypasses the folate blockage; active B6, which supports the alternative homocysteine route; NAC and alpha-lipoic acid; omega-3 for myelin; and betaine as an alternative route for lowering homocysteine. Doses are in the chapter and belong with your physician, and cyanocobalamin (the multivitamin form) is not a substitute. **Path A.** The Kernel's repair stack: 5-MTHF and methylcobalamin (myelin synthesis is methylation-dependent), NAC, omega-3 DHA, magnesium, thiamine (high priority), and vigorous daily exercise for BDNF, which it calls non-optional. For n-hexane neuropathy, physical therapy is as important as any supplement.

Run every addition past a pharmacist and an interaction checker (Drugs.com or Medscape), and ask your physician about the injection question for nitrous.

Turn to: Supp. Ch. 28 §3A (biological reconstruction for solvent recovery) and §3B (biological reconstruction for nitrous recovery). Supp. Ch. 5, Phase One. Main Book Ch. 2, §2.4–2.5.

Step 6 — Path A: conditions before chemistry. Path B: the social cues (Day 1, then ongoing)

Path A. The Kernel says solvent recovery that addresses only the pharmacology will fail. Its priorities: housing stability (which it calls the most important single determinant of solvent recovery outcome); nutritional rehabilitation (protein, thiamine, folate, zinc, and iron, as a concurrent medical issue); trauma-informed care, since most people with chronic solvent use have significant trauma histories; educational and vocational pathways for young people, because the alternative to the substance context needs a real future; and community and belonging, because using is often communal, and the group has to be replaced with one that does not use, deliberately. If you are a helper, this is where you come in: outreach, shelter, food, school, and a person who keeps showing up. **Path B.** Nitrous is easy to reach at festivals and parties, where repeated balloons are a social ritual. Plan for those settings, and note the Kernel lists frequent use (multiple balloons per session and repeated sessions) as a risk factor for nerve damage.

Turn to: Supp. Ch. 28 §4A (the recovery framework for solvent use). Compendium Protocol 05 (Digital Detox), Protocol 08 (Social Environment), Protocol 33 (The Boundary Architect).

Step 7 — What it was providing, and the earned alternative (Months 1–12)

The Kernel's principle: the substance was a signal. For solvents, the signal often points to warmth in cold, relief from hunger, escape from pain, belonging, and quieting trauma symptoms, all of which are coherent pharmacological answers to intolerable conditions, so the alternative is safety, food, warmth, and people. For nitrous, the appeal is a 60-second door to a non-ordinary state, the dissociation of an NMDA blocker. The Kernel says the ketamine and LSD chapters' approaches apply: breathwork, non-sleep deep rest (yoga nidra), and meditation are the earned versions, with deep meditation the most durable but taking months of daily practice.

> **A caution this guide adds (not in the Kernel).** Hyperventilation-based breathwork can provoke panic or dissociation in people with a psychosis history, seizure history, heart conditions, or persistent dissociation, and it is not appropriate if you have unexplained neurological symptoms. Ask your clinician first, and start with slow breathing, NSDR, and meditation.

Turn to: Supp. Ch. 28 §1A.3 (what solvents were providing), §4B (natural porting: what nitrous provided), and §7 (the integrated view). Supp. Ch. 23 §6 (the ketamine grounding and transcendence architecture) and Supp. Ch. 26 §6 (natural access points), which §4B tells you apply.

Step 8 — Trauma, mood, and support (from week 2)

The Kernel says most people with chronic solvent use carry trauma, and that trauma-informed care, not standard addiction counseling, is the right frame. Ask for a trauma-informed clinician, and treat depression or anxiety directly. For nitrous, remember that severe B12 deficiency can itself cause depression and psychiatric symptoms, so get the B12 picture before assuming a primary psychiatric cause. If any of this feels like too much to carry, call or text 988.

Turn to: Supp. Ch. 28 §4A. Supp. Ch. 39 (Complex Trauma and the Substance Connection).

Step 9 — Identity and the long game (Months 3+, Year 1 to Year 10)

Recovery from inhalants is often recovery of a future: school, work, a home, a community that does not use. Full Inventory is a structured 180-day plan, and Amends to Self puts the person who lived through it first. Family and work follow. Navigation after the first two years shifts from repair to stewardship. Section 4 shows how. Standing tools: Supp. Ch. 44 (The Transplant: redirect the devotion and daily structure the pattern required into a practice that grows). Supp. Ch. 6 (Stay Non-Addicted) and Compendium Protocol 02 (Behavioral Addictions, with its "Mask Change" caution on addiction transfer). Compendium Protocol 13 (The Pharma Trap). Supp. Ch. 38. Supp. Ch. 5, Step 6 (a weekly AI check-in profile, a reasoning tool and never a provider).

Turn to: Supp. Ch. 42 (Full Inventory). Supp. Ch. 43 (Amends to Self). Centurian Paper C-28 (The Recast). Compendium Protocol 24 (Returning to Work), Protocol 25 (The Open Door), Protocol 22 (The Family Field), Protocol 16 (The Isolation Spiral). Supp. Ch. 51 (Family & Support Network Guide): give it to the people who love you.

4. How navigation changes at Years 3, 5, and 10

Shading shows how much attention each track needs. Darkest is primary focus, then active, then maintenance. White cells with gray text are standing safeguards: low effort, never dropped. Numbers in brackets refer to the shifts listed below the table. The Kernel's inhalant timeline ends at about two years, so later years are projection.

Track	Months 0–24 (foundation)	Year 3 (consolidate)	Year 5 (build out)	Year 10 (steward)
Safety and medical	No safe amount; neuro check now	Neuro and B12 follow-up spaced [1]	Annual neuro, B12, kidney	No return: no safe amount [7]
Biology and labs	MTHFR, MTR; B12, MMA labs	Retest B12, MMA; step to upkeep [2]	Prescriber card: MTHFR, GABRA2	Re-check with new meds and age
Nerve and brain repair	B12, 5-MTHF, thiamine, food	Repair continues; PT if needed [3]	Nutrition steady; exercise daily	Nutrition kept; exercise daily
Home and conditions	Housing, food, safety first	Stable base; school or work [4]	Base secure; future built	Base kept; supports renewed
Cues and belonging	Group swapped; new belonging	Cues fainter; belonging holds	Triggers shift: stress, loss [5]	Same plan, rehearsed
Cognition and function	Cognition slow; exercise, sleep	Clarity returning; nerves improving	Function steady; checks kept	Annual checks; stay active
Identity and Manning	Purpose: first seeds only	Transplant; school or work	Manning: guide, peer outreach [6]	Mentor or run a group

The seven shifts

1. **Year 3, neurological and B12 follow-up is spaced out.** The Kernel sets no schedule, so this guide leaves the interval to your clinician: closer for anyone who had SACD symptoms or neuropathy, wider for people whose exams stay normal. Keep B12 and kidney checks if you had solvent kidney involvement.
2. **Year 3, the stack moves from building to upkeep.** Retest B12, MMA, and homocysteine (Supp. Ch. 28 §3B) and step down toward maintenance. The Trinity chapter says supplements are taken until stable, then tapered and resumed if the system destabilizes; Main Book Ch. 2 treats MTHFR support as maintenance, not cure. Step down to maintenance, not to zero.
3. **Year 3, repair continues.** The Kernel places cognitive improvement at 6 to 12 months of abstinence, toluene white-matter recovery at 1 to 2 years in adults, and partial n-hexane neuropathy recovery over 1 to 2 years, with complete recovery not guaranteed (Supp. Ch. 28 §3A). Nitrous SACD recovery depends on stage at treatment. By year 3, what has recovered has mostly recovered, and physical therapy or rehabilitation covers the rest.
4. **Year 3, a stable base carries the load.** The Kernel calls housing stability the most important determinant of solvent recovery outcome (Supp. Ch. 28 §4A). By year 3 the recovery is a life with a home, food, and school or work, not a treatment episode.

5. **Year 5, triggers shift to stress and loss.** As the original cues fade, what remains is what pushed the use in the first place: deprivation returning, a loss, a festival setting for nitrous. Keep the plan and Protocol 21 ready. This shift is extrapolation.
6. **Year 5, Manning.** This is the Trinity's third stage (Supp. Ch. 2). This is extrapolation: peer outreach to the young and excluded people the Kernel says clinics rarely reach, from someone with lived knowledge.
7. **Year 10, the standing rules.** The Kernel says there is no safe amount of solvent and that sudden death can occur on the first use (Supp. Ch. 28 §0A). For nitrous, it says any tingling or numbness after use means B12 testing now, and people with the risk factors above should not be re-exposed (Supp. Ch. 28 §2B, §3B).

What is sourced and what is extrapolated. *Shifts 3, 4, and 7 rest directly on Kernel text. Shifts 1 and 2 apply Kernel rules at a timing chosen for this guide. Shifts 5 and 6 are extrapolations. The Kernel's detailed inhalant timeline ends at about two years.*

5. What outcome to expect

The short version

The Kernel has no inhalant case study and gives no 12-month percentages, so this section is qualitative and does not make up numbers. If you do the route above, with the medical assessment first, B12 and methylation handled for nitrous, nutrition and structure handled for solvents, and repair supported, this is what the Kernel supports:

- **Solvents:** the brain can repair itself with the right conditions and time. Cognitive function improves substantially at 6 to 12 months, white matter shows measurable recovery at 1 to 2 years, and n-hexane neuropathy partly recovers, but some damage may be permanent.
- **Nitrous oxide:** early spinal cord injury is highly reversible with prompt B12, intermediate injury partly, and late injury incompletely. The outcome depends mostly on how early you were tested and treated.
- **In both cases** recovery depends on the conditions around you, not only the chemistry, and the Kernel says that is the harder part.
- **By years 3 to 5 the work is maintenance and building. By year 10 you are a steward,** carrying a small set of standing safeguards.

Milestones, in order

Milestone	When	Expected outcome	Source	Basis
Medical assessment	Days 0–14	Neurological exam and labs done. B12, MMA, homocysteine for nitrous. Kidney, liver, heart, and thiamine for solvents.	Supp. Ch. 28 §§0A.3, 3B.2	Clinical fact
Early nitrous injury	Weeks after prompt treatment	Early SACD (tingling in hands and feet) is highly reversible with prompt B12. Delay adds myelin damage.	Supp. Ch. 28 §1B.3, §3B	Kernel projection

Milestone	When	Expected outcome	Source	Basis
Cognition	Months 6–12	Cognitive impairment from chronic solvent use improves significantly at 6–12 months of abstinence.	Supp. Ch. 28 §3A	Kernel projection
White matter	Years 1–2	Toluene white-matter damage shows measurable recovery at 1–2 years in adults. Some may be permanent.	Supp. Ch. 28 §§1A.2, 3A	Kernel projection
Peripheral nerves	Years 1–2	n-hexane neuropathy partly recovers over 1–2 years with abstinence. Complete recovery is not guaranteed.	Supp. Ch. 28 §§1A.2, 3A	Kernel projection
Stable base	Months to years	Housing, food, safety, and school or work in place. The Kernel calls housing the strongest single determinant for solvents.	Supp. Ch. 28 §4A	Kernel projection
Steward phase	Years 3–10	Repair tracks at maintenance. Periodic checks. Service. Standing safeguards.	Section 4 of this guide	Extrapolated

What changes the outcome

- **Delaying testing or B12 treatment** after tingling, numbness, or weakness on nitrous.
- **Folic acid without B12,** which the Kernel says can precipitate SACD, and using the multivitamin B12 form when the active form is needed.
- **Using solvents alone, near flame, or with a bag,** and any use at all, because there is no safe amount.
- **Returning to the same conditions.** The Kernel says housing instability continues use regardless of treatment intensity.
- **Unaddressed malnutrition and low thiamine,** which can cause Wernicke encephalopathy.
- **Ignoring pre-existing B12 problems:** vegan or vegetarian diet, older age, metformin, or pernicious anemia.
- **Untreated trauma.** The Kernel says most people with chronic solvent use have it, and standard addiction counseling is not the right tool.
- **A lapse.** The Kernel treats it as information, not judgment (Protocol 21). For solvents, even one use carries the sudden-death risk. For nitrous, note the exposure and get B12 checked if you have any symptoms.

How to read the evidence behind the outcomes

The Main Book marks claims with an Evidence Tier: Established, Probable, Emerging, Author/System Experience, and Controversial or Mixed. This guide's reading: sudden sniffing death, solvent neurotoxicity, and nitrous oxide's inactivation of vitamin B12 with resulting spinal cord damage are well-established clinical facts. The Kernel's claim that MTHFR variants greatly amplify nitrous oxide toxicity rests mostly on case-level evidence and the Compendium's scoring table, as I understand the literature, so treat it as plausible but less firmly established than the B12 mechanism itself. The Kernel's statement that housing is the strongest single determinant of solvent recovery is offered without a cited source. The supplement stack, the breathwork and meditation comparisons, and the years 3 to 10 trajectory sit lower on that scale, so bring them to your clinician as questions, not as facts.

Take these to your clinician

- An honest account of your use: which substances, how often, how you inhale, and, for nitrous, how many balloons or canisters a session and how many sessions.
- Any tingling, numbness, weakness, unsteadiness, trouble with your hands, or changes in bladder control, and a request for B12, MMA, and homocysteine tests, a neurological exam, and an MRI of the spine if symptoms are present.
- For solvents: a neurological exam, electrolytes and kidney function, liver tests, an ECG, and a hearing check.
- Your diet (vegan or vegetarian), any metformin, and any history of B12 deficiency or pernicious anemia, plus your MTHFR result if known.
- A question about B12 injections versus oral B12, a plan for nutrition and thiamine, and a referral to trauma-informed care and social services for housing, food, and school or work.